LAND USE ISSUES THAT MAY AFFECT SITING NEW POWER PLANTS IN CALIFORNIA

INTRODUCTION

This paper examines the California Energy Commission (Energy Commission) land use review procedures, local land use plans, and local agency and public participation that affect proposals to construct and operate new power plants in California. The paper identifies issues regarding power plant siting constraints related to land use development policies and standards (LORS) and local agency and public participation that may constrain the process of siting of power plants.

The information in this paper will be discussed at a workshop at the Energy Commission in Sacramento on March 8, 2001. The purpose of the workshop is to develop the information needed for the Siting Committee to identify appropriate actions, if any, needed to avoid constraints to the licensing of future power plants due to land use issues.

OVERVIEW OF LAND USE CONSIDERATIONS ASSOCIATED WITH POWER PLANT LICENSING AND REVIEW PROCESS

The following information provides an overview of the current process of considering land use issues when evaluating power plant projects as well as a description of applicable provisions under state law associated with land use considerations and power plant facilities.

LAND USE ANALYSIS OVERVIEW ASSOCIATED WITH APPLICATION FOR CERTIFICATION (AFC) AND SMALL POWER PLANT EXEMPTION (SPPE) PROCESSES

The land use analyses conducted for AFCs and SPPEs involve several general steps that include, but are not limited to, the following:

- Determining the data adequacy of the power plant project application (e.g., AFC) associated with providing enough land use information to process the application pursuant to Cal. Code of Regs., Tit. 20, Section 1704, Appendix B.
- Compiling land use information on the subject power plant project typically involves review of all applicable land use plans and standards, consultations with the local land use agencies and field review of the power plant project site.
- Requesting additional information on the power plant project associated with data requests and workshops.
- Evaluating the power plant project's compatibility with adjacent land uses, as well as consideration of the project's consistency with applicable land use policies and standards (LORS).

- Recommending Conditions of Certification to ensure that the power plant project avoids land use compatibility issues and issues associated with compliance with applicable LORS.

In addition, the process involves participation of local land use agencies (typically cities and counties) in reviewing and commenting on the power plant application process. Often, the application review process conducted by the Energy Commission occurs in place of the normal development review and approval process that the local agency would typically require of an industrial land use in their jurisdiction, as provided under the Warren- Alquist Act. Exceptions to this are power plant projects that require local agencies to take discretionary actions regarding general plan amendments, rezones, or annexations.

APPLICABLE STATE REGULATIONS ASSOCIATED WITH POWER PLANT SITING AND LAND USE

The Energy Commission land use review process requires that project compliance with the laws, ordinances, regulations, and statutes of local jurisdictions be evaluated and addressed. Public Resources Code Section 25525 states that the Energy Commission shall not certify any facility when if finds "that the facility does not conform with any applicable state, local, or regional standards, ordinances, or laws, unless the commission determines that such facility is required for public convenience and necessity and that there are not more prudent and feasible means of achieving such public convenience and necessity." When determining if a project is in conformance with state, local or regional ordinances or regulations, the Energy Commission typically meets and consults with the applicable agencies to determine conformity and, when necessary, "to attempt to correct or eliminate any noncompliance" (Public Resources Code Section 25523[d][1]). In addition, the Warren-Alquist Act (Public Resources Code 25523[a]) requires specific provisions relating to the manner in which the proposed power plant facility is to be designed and operated in order to protect environmental quality.

ENVIRONMENTAL JUSTICE

In 1994, President Clinton issued Executive Order 12898 that requires federal agencies to adopt strategies to address environmental justice (EJ) concerns within the context of agency operations. Energy Commission staff evaluates proposed power plant projects for potential impacts on minority and low-income populations following the U.S. EPA's " Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses". In short, Commission staff consider four things: whether there is a sufficient number of minority or low-income people to warrant an EJ analysis; whether there is a potential significant impact on the identified population; when there is such an impact, whether the impact falls disproportionately on the minority or low-income population, and identification of appropriate mitigation for the impact. If EF concerns are identified, staff and the public advisor make additional outreach efforts to involve members of the community.

LAND USE CONSTRAINTS

LAND USE COMPATIBILITY

Land use conflicts often occur where proposed land uses create physical impacts such as noise, dust, light and glare etc., which offend nearby sensitive land uses (e.g., residential, schools, recreation areas, hospitals, senior centers, etc.). Typically, avoidance of land use compatibility issues involves procuring sites that are large enough to provide an adequate buffer area, or locating within an existing industrial area, or that intervening uses in the area would minimize land use conflicts.

Proposed new power plant projects may also be seen as counter to the economic development activities and goals of the local land use agency (cities or counties). For example, several cities and counties throughout California are actively pursuing large high technology employer-type uses (such as Hewlett Packard, NEC, Intel, etc) to locate facilities in their industrial designated areas. They may perceive a proposed new power plant project as incompatible with these economic development goals. Other examples of this include perceived conflicts with the "quality of life" provided in a community.

INFRASTRUCTURE REQUIREMENTS

Power plants require substantial physical infrastructure that has become difficult to provide at suitable new locations. Construction of extended new transmission facilities and other linear facilities usually raises environmental concerns that are time consuming, expensive and politically costly to deal with. A supply of natural gas for fuel, water for cooling and steam generation, electrical transmission lines, wastewater conveyance system, drainage facilities, roadways and disposal areas, are necessary. These must be extended from the nearest facility with available capacity and the shortest possible route is usually desirable. Generally the longer the route to extend required infrastructure facilities, the more environmental impacts and land use conflicts encountered that need to be addressed. Land use conflicts often arise when power plant infrastructure requirements involve modification and/or expansion of existing facilities. For example, extension of underground infrastructure facilities (e.g., natural gas pipelines) can cause conflicts with local land use agencies street improvement programs, as well as result in significant (though temporary) land use conflicts with land uses along the route of the extension.

As opposed to the challenges posed in identifying sites for new plants, existing power plants often have available infrastructure for natural gas and electrical transmission facilities, and are usually appropriately designated in community land use plans. Refurbishing and expanding existing power plants, therefore, may represent the path of least resistance when it comes to selecting a site to increase power generation, although this may not be true in all communities. The desirability of renovation may be enhanced through improvements to older technology, and possibly resulting in improvements in air quality and safety.

URBAN VERSUS RURAL AREAS

While a majority of the state's power demand is associated with urban areas, power plants are not usually proposed to be located in those areas. Exceptions to this may occur when existing industrial land have been subject to urban encroachment. Generally, siting power plants in urban areas may be considered preferable because of the availability of required infrastructure facilities and public services, close proximity to power users (minimizing power loss from transmission), and general compatibility with urban land uses. However, land use conflicts are generally more of a problem in urban areas where intense land development with a variety of uses occurs in close proximity. In urban areas large vacant parcels, especially parcels that are appropriately designated as heavy industrial and are in reasonable proximity to required infrastructure, may be rare and land prices are relatively high. Urban sites are likely to be smaller, providing less space for needed equipment and infrastructure and less opportunity for physical separation from population area. Perhaps the best opportunities for power plant siting on large urban sites may occur where military base closure is occurring or on the fringe of urban areas where development has not yet occurred. The Crockett Cogeneration Project was constructed on a small site containing an existing heavy industrial facility, but still experienced significant challenges in designing and locating equipment to avoid or mitigate impacts on adjacent urban areas. The Crockett project demonstrated that smaller sites with suitable existing uses that act as buffers provide an opportunity for power plant siting in a more developed urban situation.

Siting power plants in rural areas can provide several advantages over urban areas including proximity to the electrical transmission fuel supply and water supply lines, and the availability of large, and relatively inexpensive parcels of land that provide the greatest opportunity to avoid or reduce land use conflict through physical separation. However, siting power plants in rural areas can result in conflicts with agricultural operations, other rural land uses, and local agency policies that prohibit development in rural areas in order to preserve open space, agricultural lands and habitat areas.

CONSTRAINTS ASSOCIATED WITH LAND USE DEVELOPMENT POLICIES AND STANDARDS (LORS)

LOCAL AGENCY PARTICIPATION

As provided in the Warren-Alquist Act, the Commission is identified as the sole permitting authority for power plant projects producing in excess of 50 megawatts of electrical energy. Given the provisions in the Warren-Alquist Act, local land use agencies sometimes have the impression that the review process is out of their jurisdiction and that they cannot obtain development review fees to fund their staff's involvement in the projects. However, the Energy Commission regulations do provide for reimbursement of local agencies. The regulations do not provide for reimbursement of state or federal agencies, or public participation. In some cases the local land use agency is in opposition to a power plant project, which can

complicate receiving input from the local land use agency because of their status as an intervener. While early consultation to solicit local land use agency participation is preferable, power plant applicants may be reluctant for fear of rallying early opposition to their projects.

RELATIONSHIP BETWEEN STATE AND LOCAL LAND USE CONTROL

The primary responsibility for land use regulation development and control lies with local agencies. While there are several state laws associated with land use control (e.g., Planning and Zoning Law [Government Code Sections 65000 *et al*.], Subdivision Map Act [Government Code 66410 *et al*.], etc.), the state does not directly regulate land use. There is currently no state requirement that local agencies provide any land use designation that would clearly allow a power plant. As result, land use issues associated with power plant siting can vary significantly between local jurisdictions. For example, Sacramento County has an energy element as part of its general plan that generally acknowledges that the County will have an increased demand for power and provides guidance regarding consideration of future power facilities and conservation planning, while other communities provide little or no direction in their general plans and ordinances regarding the need for energy infrastructure.

LOCAL AGENCY LAND USE ISSUES

While some communities such as Sacramento County have been proactive in considering regional power needs and land uses, some local jurisdictions have chosen to preclude power plants in their planning efforts and land use plans due to public opposition. In these situations, local agency staff is sometimes hesitant to provide assessments of a power plant's consistency with land use plans due to the political nature of the ultimate interpretation of local development standards by elected officials.

In addition, the application of local agency zoning ordinance provisions and development standards to power plants is often unclear. Specific issues often include setback standards, lot coverage, outside storage, noise and height restrictions, and lot sizes. In order to resolve consistency issues, Conditions of Certification sometimes include requiring general plan amendments, rezones, variances or participation in the development review process of the local agency. Depending on the land use and the political setting of the local agency, this could result in further local opposition and denial of local standard amendments, which then result in power plant construction delays or cancellation of the project.

REGIONAL AGENCY LAND USE PROVISION ISSUES

As the environmental sensitivity of a site and associated linear corridors increases, the level of concern expressed by various agencies at the regional, state and federal level also increases. These agencies may include the U.S. Bureau of Land Management (BLM), Coastal Commission, Bay Conservation and Development Commission (BCDC), Federal Aviation Administration (FAA), and Local Agency Formation Commissions (LAFCOs). Resolving concerns regarding stream crossing/disturbance, wetlands, air quality, sensitive species, local coastal program

and historical resource issues can be complicated and time consuming. This may involve multiple jurisdictions increase the need for early coordination to resolve issues. They also add complexity and can result in delays as each jurisdiction follows its own procedures.

POWER PLANT APPLICATION ISSUES

There are occasions where the power plant application (AFC) may be considered data adequate, but fails to provide the necessary information in order to evaluate land use issues. This issue often arises in association with the proposed power plant site plan, which sometimes is missing information such as property line location, roadway right-of-way, a scale, relationship to other land uses and other associated material. This information sometimes remains ill-defined even after data requests and associated workshops, resulting in Conditions of Certification that require site plan review be performed by the local land use agency.

There are delays that can occur when the power plant application does not have data readily available, where the applicant decides to alter aspects of the project to address concerns that arise in the process, or if the applicant does not clearly own or have authorization to use the site. The applicant may not be informed or may be incorrectly advised about local land use plans. The San Francisco Energy project is an example of a project where a privately owned site was proposed that was incompatible with existing land uses and general plan/zoning designations. The applicant ultimately withdrew the site after an extended public controversy, and requested certification for a different site, which was owned by the City/County of San Francisco. The Energy Commission certified the project at the second site, but the City/County would not provide a lease for the site. This site control issue resulted in the applicant eventually dropping the project, despite Energy Commission approval.

CONCLUSIONS

As described above, issues associated with land use constraints can vary substantially by jurisdiction. They generally involve determination of consistency with LORS and local land use agency participation in the process. Possible options for the Committee to consider to improve the consideration of land use issues include the following:

- Establishing an early agency consultation process with local, regional, state and federal agencies potentially affected by a proposed power plant project in order to identify land use and LORS issues prior to completion of the data adequacy process for AFCs. This process could also be used to identify alternative power plant sites considered acceptable by the affected agencies.
- Providing workshops or information sessions for affected land use agencies regarding how the Energy Commission power plant permitting process works and how the agency can provide input.

- Offer assistance to local and regional agencies in the development of a programs that identify power needs on a regional basis (e.g., Sacramento Metropolitan area) as well as land areas appropriate for siting power plants and related linear facilities.
- Encourage local land use agencies to consider the power needs of the community in their land use and planning activities (e.g., general plan and specific plan development processes and associated zoning ordinances).
- Evaluate local agency and public participation reimbursement regulations and/or guidelines to facilitate participation in the siting process.